



EDITORIAL

Hypertensive Disorder in Zika Virus Infection

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At present, Zika virus infection is a big public health problem. The infection can be seen worldwide and is still not successfully controlled. The disease can cause acute febrile illness but the important problems are the possible induction of neurological complication and teratogenic effect. The occurrence of microcephaly children born to infected mothers lead to the global concern on the problem. At present, the infection can be seen worldwide in several countries. The concomitant between Zika virus infection and other common medical disorder is possible. Nevertheless, the comorbidity is usually neglected. Here, the author would like to draw attention to the interrelationship between hypertensive disorder and Zika virus infection.

In fact, Zika virus infection can occur in the any patients regardless of blood pressure levels (hypertension, hypotension or normal blood pressure). There is no evidence that the patients with underlying hypertension has specific additional problem if they get Zika virus infection. Referring to its similar infection, dengue, it was shown that the dengue patients with underlying hypertension had a higher risk to develop severe form of dengue infection, dengue hemorrhagic fever [1]. In another study, Pooransingh, et al. reported that "There was a significant association of ethnicity, hypertension, and diabetes with length of hospital stay [2]". In another study from Taiwan, Chen, et al. reported that 62.9% of the dengue patients admitted to intensive care unit had hypertension as underlying disease [3]. In fact, dengue infection has similar pathophysiology to Zika virus infection. Considering phylogenetics, Zika virus is also close to dengue virus. Both viruses also share the common mosquito vector and the outbreak and endemic areas are also similar. Although there is still no report on the increased severity of Zika virus infection in patients with

underlying hypertension, the similar problem, as seen in dengue, might be theoretically expected. Nevertheless, dengue virus is more virulent than Zika virus, hence, the superimposition of the properties of dengue virus upon Zika virus needs further clinical proof.

Indeed, in Zika virus infection, cardiac problem is observable [4,5]. Minhas, et al. analyzed the reports on Zika virus infections and concluded that there was "an association between cardiovascular complications and ZIKV in the acute phase of the infection" [5]. There are some reports on the observed blood pressure of the patients. Wiwanitkit noted that there was no significant change of blood pressure in Zika virus infected patients [6]. The vital sign including to the blood pressure of the patient is usually normal [7]. Nevertheless, there is an interesting case report on hypertensive disorder in the patient with Zika virus infection. In that case, the hypertensive iridocyclitis was observed [8]. This problem is localized and affected both eyes without report on systemic increased blood pressure [8].

As already mentioned, the Zika virus infection exists in several countries at present and it is no doubt that the infection can be seen in hypertensive patients. The actual interrelationship between hypertension and Zika virus infection has never been clarified. In summary, the issue on the hypertension and Zika virus infection is an actual interesting issue for further researching.

Conflict of Interest

None.

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